SONY

3-226-961-**11** (1)

FM/AM Compact Disc Player

Operating Instructions US

Owner's Record

The model and serial numbers are located on the bottom of the unit.
Record these numbers in the space provided below.
Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. CDX-CA660X / CA650X Serial No. _____

For installation and connections, see the supplied installation / connections manual.

CDX-CA660X
CDX-CA650X

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Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio / TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

CAUTION

The use of optical instruments with this product will increase eye hazard.

Welcome !

Thank you for purchasing this Sony Compact Disc Player. You can enjoy its various features even more with:

- Optional CD / MD units (both changers and players)*1.
- CD TEXT information (displayed when a CD TEXT disc*2 is played on a connected optional CD unit with the CD TEXT function).
- **Supplied controller accessory**
  Card remote commander RM-X114
- **Optional controller accessory**
  Rotary commander RM-X4S

*1 *This unit works with Sony products only.*
*2 *A CD TEXT disc is an audio CD that includes information such as the disc name, artist name, and track names. This information is recorded on the disc.*

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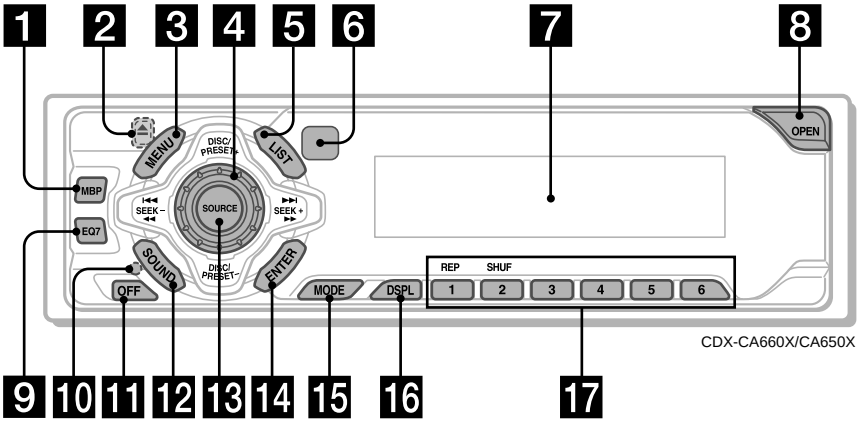
Location of controls

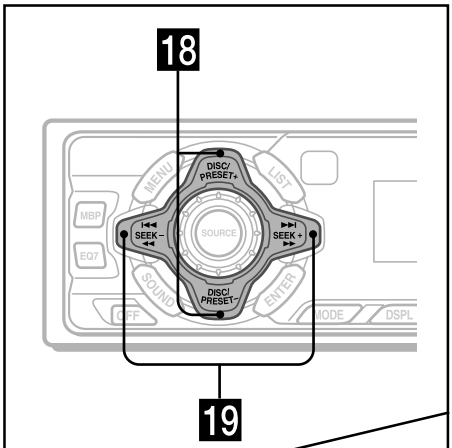
Refer to the pages listed for details.

CD/MD : During Playback
RADIO : During radio reception
TV : During TV reception
MENU : During menu mode



1 **MBP (My Best sound Position) button 19**
2 **⏏ (eject) button** (located on the front side of the unit, behind the front panel) **9, 22**
3 **MENU button 9, 11, 12, 13, 15, 19, 20, 21, 22**
4 **Volume control dial**
5 **LIST button**
CD/MD **11, 12**
RADIO **15, 16**
6 **Receptor for the card remote commander**
7 **Display window**
8 **OPEN button 8, 9**
9 **EQ7 button 20**
10 **RESET button** (located on the front side of the unit, behind the front panel) **7**
11 **OFF (Stop/Power off) button*** **8, 9**
12 **SOUND button 18, 19**
13 **SOURCE (Power on/Radio/CD/MD) button 8, 9, 10, 11, 13, 14, 20, 21, 22**
14 **ENTER button**
CD/MD **12**
RADIO **16**
MENU **9, 11, 12, 13, 15, 19, 20, 21, 22**
15 **MODE button**
CD/MD **10, 11**
RADIO **13, 14**
TV **21**
16 **DSPL (display mode change) button 10, 11, 15**
17 **Number buttons**
CD/MD
① **REP 10**
② **SHUF 10**
RADIO **14**
TV **22**

* **Warning when installing in a car without an ACC (accessory) position on the ignition key switch**
Be sure to press OFF on the unit for 2 seconds to turn off the clock display after turning off the engine.
Otherwise, the clock display does not turn off and this causes battery drain.



DISC/PRESET
(+): to select upwards

SEEK
(+): to select rightwards / ▶▶|

SEEK
(–): to select leftwards / |◀◀

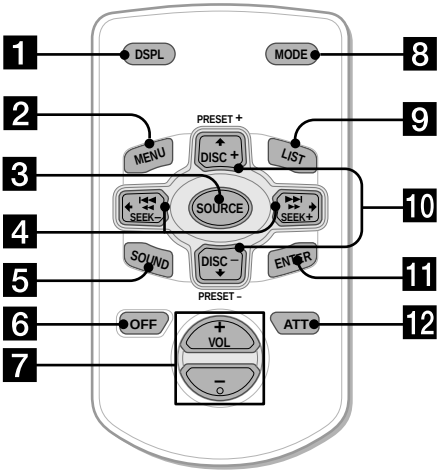
DISC/PRESET
(–): to select downwards

In menu mode, the currently selectable button (s) of these four are indicated with a "↑" in the display.

18 DISC/PRESET buttons (+/–)
- CD/MD **10, 12**
- RADIO **14, 16**
- TV **21**
- MENU **9, 11, 12, 13, 15, 19, 20, 21, 22**

19 SEEK buttons (–/+) 18
- CD/MD **9**
- RADIO **14**
- TV **22**
- MENU **9, 11, 12, 13, 15, 19, 20, 22**

Card remote commander RM-X114



The corresponding buttons of the card remote commander control the same functions as those on this unit.

1 DSPL button
2 MENU button
3 SOURCE button
4 SEEK (←/→) buttons
5 SOUND button
6 OFF button
7 VOL (+/–) buttons
8 MODE button
9 LIST button
10 DISC/PRESET (↑/↓) buttons
11 ENTER button
12 ATT button

Note
If the unit is turned off by pressing (OFF) for 2 seconds, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

Tip
Refer to "Replacing the lithium battery" for details on how to replace the batteries (page 23).

Precautions

- If your car was parked in direct sunlight, allow the unit to cool off before operating it.
- Power antennas will extend automatically while the unit is operating.
- Do not use the CUSTOM FILE feature while driving, or perform any other function which could divert your attention from the road.

If you have any questions or problems concerning your unit that are not covered in this manual, please consult your nearest Sony dealer.

Moisture condensation

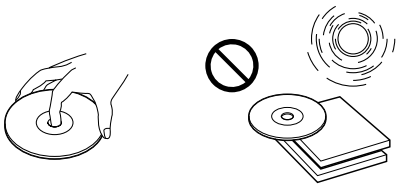
On a rainy day or in a very damp area, moisture condensation may occur inside the lenses and display of the unit. Should this occur, the unit will not operate properly. In such a case, remove the disc and wait for about an hour until the moisture has evaporated.

To maintain high sound quality

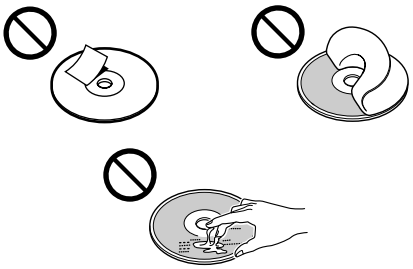
Be careful not to splash juice or other soft drinks onto the unit or discs.

Notes on discs

- To keep the disc clean, do not touch the surface. Handle the disc by its edge.
- Keep your discs in their cases or disc magazines when not in use. Do not subject the discs to heat / high temperature. Avoid leaving them in parked cars or on dashboards / rear trays.



- Do not attach labels, or use discs with sticky ink / residue. Such discs may stop spinning when used, causing a malfunction, or may ruin the disc.



- Discs with special shapes (heart-shaped discs, octagonal discs, etc.) cannot be played on this unit. Attempting to do so may damage the unit. Do not use such discs.
- You cannot play 8 cm (3 in.) CDs.
- Before playing, clean the discs with a commercially available cleaning cloth. Wipe each disc from the center out. Do not use solvents such as benzine, thinner, commercially available cleaners, or antistatic spray intended for analog discs.

Notes on CD-R discs

• You can play CD-Rs (recordable CDs) designed for audio use on this unit.
Look for this mark to distinguish CD-Rs for audio use.

This mark denotes that a disc is not for audio use.

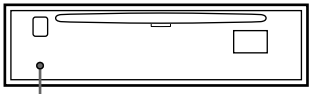
• Some CD-Rs (depending on the equipment used for its recording or the condition of the disc) may not play on this unit.
• You cannot play a CD-R that is not finalized*.

* *A process necessary for a recorded CD-R disc to be played on the audio CD player.*

Getting Started

Resetting the unit

Before operating the unit for the first time or after replacing the car battery, you must reset the unit.
Remove the front panel and press the RESET button with a pointed object, such as a ball-point pen.



RESET button

Note

Pressing the RESET button will erase the clock setting and some stored contents.

Detaching the front panel

You can detach the front panel of this unit to protect the unit from being stolen.

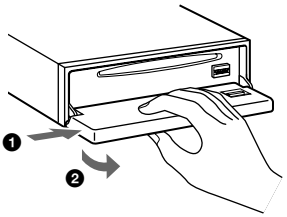
Caution alarm

If you turn the ignition switch to the OFF position without removing the front panel, the caution alarm will beep for a few seconds.
If you connect an optional amplifier and do not use the built-in amplifier, the beep sound will be deactivated.

1 Press (OFF)*.
CD / MD playback or radio reception stops (the key illumination and display remain on).

** If your car has no ACC position on the ignition switch, be sure to turn the unit off by pressing (OFF) for 2 seconds to avoid car battery drain.*

2 Press (OPEN), then slide the front panel to the right, and gently pull out the left end of the front panel.



Notes

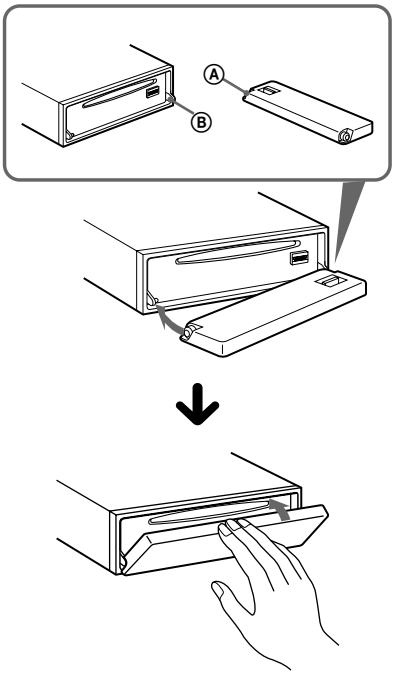
- *If you detach the panel while the unit is still turned on, the power will turn off automatically to prevent the speakers from being damaged.*
- *Do not drop or put excessive pressure on the front panel and its display window.*
- *Do not subject the front panel to heat/high temperature or moisture. Avoid leaving it in parked cars or on dashboards/rear trays.*

Tip

When carrying the front panel with you, use the supplied front panel case.

Attaching the front panel

Place hole Ⓐ of the front panel onto the spindle Ⓑ on the unit, then lightly push the left side in.
Press (SOURCE) (or insert a CD) to operate the unit.



Note

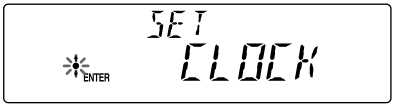
Do not put anything on the inner surface of the front panel.

Setting the clock

The clock uses a 12-hour digital indication.

Example: To set the clock to 10:08

1 Press (MENU), then press either side of (DISC/PRESET) repeatedly until "CLOCK" appears.



❶ Press (ENTER).
The hour indication flashes.

❷ Press either side of (DISC/PRESET) to set the hour.

❸ Press the (+) side of (SEEK).
The minute indication flashes.

❹ Press either side of (DISC/PRESET) to set the minute.

2 Press (ENTER).

The clock starts. After the clock setting is completed, the display returns to normal play mode.

Tip
When D.INFO mode is set to ON, the time is always displayed (page 18).

CD Player
CD/MD Unit (optional)

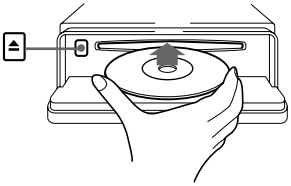
In addition to playing a CD with this unit, you can also control external CD / MD units.

Note
If you connect an optional CD unit with the CD TEXT function, the CD TEXT information will appear in the display when you play a CD TEXT disc.

Playing a disc

(With this unit)

1 Press (OPEN) and insert the disc (labeled side up).



2 Close the front panel.
Playback starts automatically.

If a disc is already inserted, press (SOURCE) repeatedly until "CD" appears to start playback.

To	Press
Stop playback	(OFF)
Eject the disc	(OPEN) then ⏏
Skip tracks – Automatic Music Sensor	(SEEK) (⏮ / ⏭) [once for each track]
Fast-forward / reverse – Manual Search	(SEEK) (◀◀ / ▶▶) [hold to desired point]

Notes
- *When the last track on the disc is over, playback restarts from the first track of the disc.*
- *With optional unit connected, playback of the same source will continue on to the optional CD/MD unit.*

continue to next page →

(With optional unit)

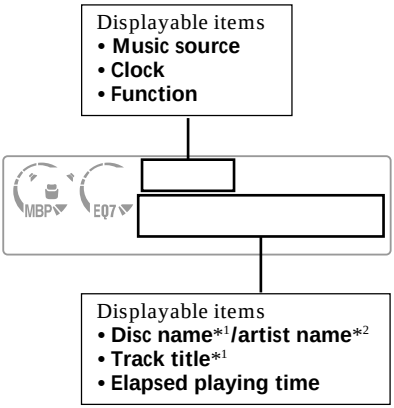
1 Press (SOURCE) repeatedly to select "CD" or "MD."

2 Press (MODE) repeatedly until the desired unit appears.
Playback starts.

To	Press
Skip discs – Disc selection	(DISC/PRESET) (+/–)

Display items

When the disc/track changes, any prerecorded title of the new disc/track is automatically displayed (if the Auto Scroll function is set to "ON," names exceeding 8 characters will be scrolled (page 18)).



To	Press
Switch display item	(DSPL)

*1 *"NO NAME" indicates there is no Disc Memo (page 11) or prerecorded name to display.*
*2 *Only for CD TEXT discs with the artist name.*

Notes
- *Some characters cannot be displayed.*
- *For some CD TEXT discs with very many characters, information may not scroll.*
- *This unit cannot display the artist name for each track of a CD TEXT disc.*

Playing tracks repeatedly — Repeat Play

The disc in the main unit will repeat a track or the entire disc when it reaches the end. For repeat play, you can select:
- REP-1 — to repeat a track.
- REP-2* — to repeat a disc.

* *Available only when one or more optional CD/MD units are connected.*

During playback, press (1) (REP) repeatedly until the desired setting appears in the display.
Repeat Play starts.

To return to normal play mode, select "REP-OFF."

Playing tracks in random order — Shuffle Play

You can select:
- SHUF-1 — to play the tracks on the current disc in random order.
- SHUF-2*1 — to play the tracks in the current optional CD (MD) unit in random order.
- SHUF-ALL*2 — to play all the tracks in all the connected CD (MD) units (including this unit) in random order.

*1 *Available only when one or more optional CD (MD) units are connected.*
*2 *Available only when one or more optional CD units, or two or more optional MD units are connected.*

During playback, press (2) (SHUF) repeatedly until the desired setting appears in the display.
Shuffle Play starts.

To return to normal play mode, select "SHUF-OFF."

Note
"SHUF-ALL" will not shuffle tracks between a CD player and an MD player.

Labeling a CD — Disc Memo

(For a CD unit with the CUSTOM FILE function)

You can label each disc with a custom name (Disc Memo). You can enter up to 8 characters for a disc. If you label a CD, you can locate the disc by name (page 12).

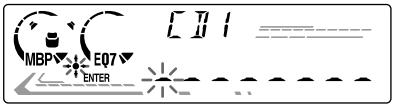
Caution

Do not use the CUSTOM FILE feature while driving, or perform any other function which could divert your attention from the road.

1 Start playing the disc you want to label.

2 Press (MENU), then press either side of (DISC/PRESET) repeatedly until "NAMEEDIT" appears.

3 Press (ENTER).



The unit will repeat the disc during the labeling procedure.

4 Enter the characters.

❶ Press the (+)*1 side of (DISC/PRESET) repeatedly to select the desired character.

A → B → C ... → 0 → 1 → 2 ... → + → – → ∗ ... → _*2 → A

*1 *For reverse order, press the (–) side of (DISC/PRESET).*

*2 *(blank space)*

❷ Press the (+) side of (SEEK) after locating the desired character.

If you press the (–) side of (SEEK), you can move back to the left.

❸ Repeat steps ❶ and ❷ to enter the entire name.

5 To return to normal CD play mode, press (ENTER).

Tips

- *Simply overwrite or enter "_" to correct or erase a name.*
- *There is another way to start labeling a CD: Press (LIST) for 2 seconds instead of performing steps 2 and 3. You can also complete the operation by pressing (LIST) for 2 seconds instead of step 5.*
- *You can label CDs on a unit without the CUSTOM FILE function if that unit is connected along with a CD unit that has the function. The Disc Memo will be stored in the memory of the CD unit with the CUSTOM FILE function.*

Note

REP-1/shuffle play is suspended until the Name Edit is complete.

Viewing the Disc Memo

As a display item, the Disc Memo always takes priority over any original CD TEXT information.

To	Press
View	(DSPL) during CD / CD TEXT disc playback

Tip

To find out about other items that can be displayed, see page 10.

Erasing the Disc Memo

1 Press (SOURCE) repeatedly to select "CD."

2 Press (MODE) repeatedly to select the CD unit storing the Disc Memo.

3 Press (MENU), then press either side of (DISC/PRESET) repeatedly until "NAME DEL" appears.

4 Press (ENTER).
The stored names will appear in order from the earliest entered.

5 Press either side of (DISC/PRESET) repeatedly to select the disc name you want to erase.
The stored names will appear from the earliest ones entered.

6 Press (ENTER) for 2 seconds.
The name is erased.
Repeat steps 5 and 6 if you want to erase other names.

continue to next page →

7 **Press (MENU) twice.**
The unit returns to normal CD play mode.

Notes
- *When the Disc Memo for a CD TEXT disc is erased, the original CD TEXT information is displayed.*
- *If you cannot find the Disc Memo you want to erase, try selecting a different CD unit in step 2.*

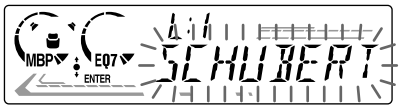
Locating a disc by name

— List-up (For a CD unit with the CD TEXT/ CUSTOM FILE function, or an MD unit)

You can use this function for discs that have been assigned custom names*1 or for CD TEXT discs*2.

*1 *Locating a disc by its custom name: when you assign a name for a CD (page 11) or an MD.*
*2 *Locating discs by the CD TEXT information: when you play a CD TEXT disc on a CD unit with the CD TEXT function.*

1 **Press (LIST).**
The name assigned to the current disc appears in the display.



2 **Press either side of (DISC/PRESET) repeatedly until you find the desired disc.**

3 **Press (ENTER) to play the disc.**

Note
Some letters cannot be displayed (exception: Disc Memo).

Selecting specific tracks for playback

— Bank (For a CD unit with the CUSTOM FILE function)

If you label the disc, you can set the unit to skip or play the tracks of your choice.

1 **Start playing the disc you want to label.**

2 **Press (MENU), then press either side of (DISC/PRESET) repeatedly until "BANK SEL" appears.**

3 **Press (ENTER).**

4 **Label the tracks.**
❶ Press either side of (SEEK) repeatedly to select the track you want to label.

❷ Press (ENTER) repeatedly to select "PLAY" or "SKIP."

5 **Repeat step 4 to set "PLAY" or "SKIP" for all the tracks.**

6 **Press (MENU) twice.**
The unit returns to normal CD play mode.

Notes
- *You can set "PLAY" and "SKIP" for up to 24 tracks.*
- *You cannot set "SKIP" for all the tracks on a CD.*

Playing specific tracks only

You can select:
- BANK-ON — to play the tracks with the "PLAY" setting.
- BANK-INV (Inverse) — to play the tracks with the "SKIP" setting.

1 During playback, press (MENU), then press either side of (DISC/PRESET) repeatedly until "BANK-ON," "BANK-INV," or "BANK-OFF" appears.

2 Press the (+) side of (SEEK) repeatedly until the desired setting appears.

BANK-ON → BANK-INV → BANK-OFF → BANK-ON

3 Press (ENTER).
Playback starts from the track following the current one.

To return to normal play mode, select "BANK-OFF" in step 2.

Radio

The unit can store up to 6 stations per band (FM1, FM2, FM3, AM1, and AM2).

Caution

When tuning in stations while driving, use Best Tuning Memory to prevent accidents.

Storing stations automatically

— Best Tuning Memory (BTM)

The unit selects the stations with the strongest signals within the selected band, and stores them in the order of their frequency.

1 Press (SOURCE) repeatedly to select the radio.

2 Press (MODE) repeatedly to select the band.

3 Press (MENU), then press either side of (DISC/PRESET) repeatedly until "BTM" appears.

4 Press (ENTER).
A beep sounds when the setting is stored.

Notes
- *If only a few stations can be received due to weak signals, some number buttons will retain their former settings.*
- *When a number is indicated in the display, the unit starts storing stations from the one currently displayed.*

Receiving the stored stations

1 Press (SOURCE) repeatedly to select the radio.

2 Press (MODE) repeatedly to select the band.

3 Press the number button (1 to 6) on which the desired station is stored.

Tip

Press either side of (DISC/PRESET) to receive the stations in the order they are stored in the memory (Preset Search function).

If preset tuning does not work

Press either side of (SEEK) to search for the station (automatic tuning).
Scanning stops when the unit receives a station. Repeat until the desired station is received.

Tips

- *If automatic tuning stops too frequently, turn on the Local Seek to limit seek to stations with stronger signals (see "Changing the sound and display settings," page 18).*
- *If you know the frequency of the station you want to listen to, press and hold either side of (SEEK) to locate the approximate frequency, then press (SEEK) repeatedly to fine adjust to the desired frequency (manual tuning).*

If FM stereo reception is poor

Select monaural reception mode.
(see "Changing the sound and display settings," page 18).
The sound improves, but becomes monaural ("ST" disappears).

Note

If interference occurs, this unit will automatically narrow the reception frequency to eliminate noise (IF AUTO function). In such cases, some FM stereo broadcasts may become monaural while in the stereo reception mode.

Tip

To always hear FM stereo broadcasts in stereo, you can change the IF AUTO setting and widen the frequency signal reception (see "Changing the sound and display settings," page 18). Note that some interference may occur in this setting.

Storing only the desired stations

You can manually preset the desired stations on any chosen number button.

1 Press (SOURCE) repeatedly to select the radio.

2 Press (MODE) repeatedly to select the band.

3 Press either side of (SEEK) to tune in the station that you want to store.

4 Press the desired number button (1 to 6) for 2 seconds until "MEM" appears.
The number button indication appears in the display.

Note

If you try to store another station on the same number button, the previously stored station will be erased.

Storing station names

— Station Memo

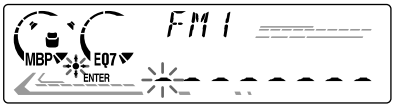
You can assign a name to each radio station and store it in memory. The name of the station currently tuned in appears in the display. You can assign a name using up to 8 characters for a station.

Storing the station names

1 Tune in a station whose name you want to store.

2 Press (MENU), then press either side of (DISC/PRESET) repeatedly until "NAMEEDIT" appears.

3 Press (ENTER).



4 Enter the characters.

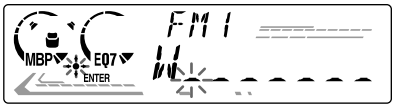
❶ Press the (+)*1 side of (DISC/PRESET) repeatedly to select the desired character.

A → B → C ... → 0 → 1 → 2 ... → + → – → ∗ ... → _*2 → A

*1 *For reverse order, press the (–) side of (DISC/PRESET).*

*2 *(blank space)*

❷ Press the (+) side of (SEEK) after locating the desired character.



If you press the (–) side of (SEEK), you can move back to the left.

❸ Repeat steps ❶ and ❷ to enter the entire name.

5 Press (ENTER).

Tips

- *Simply overwrite or enter "_" to correct or erase a name.*
- *There is another way to start storing station names: Press (LIST) for 2 seconds instead of performing steps 2 and 3. You can also complete the operation by pressing (LIST) for 2 seconds instead of step 5.*

Displaying the station name

Switch the display item to frequency or station name*.

To	Press
Switch display item	(DSPL) during radio reception

** If the station name is not stored, "NO NAME" appears in the display for one second.*

Erasing the station name

1 During radio reception, press (MENU), then press either side of (DISC/PRESET) repeatedly until "NAME DEL" appears.

2 Press (ENTER).

3 Press either side of (DISC/PRESET) repeatedly to select the station whose name you want to erase.

4 Press (ENTER) for 2 seconds.
The name is erased.
Repeat steps 3 to 4 if you want to erase other names.

5 Press (MENU) twice.
The unit returns to normal radio reception mode.

Note

If you have already erased all of the station names, "NO DATA" appears in step 4.

Locating a station by name — List-up

1 During radio reception, press (LIST).
The name assigned to the station currently tuned appears in the display.

2 Press either side of (DISC/PRESET) repeatedly until you find the desired station.
If no name is assigned to the selected station, the frequency appears in the display.

3 Press (ENTER) to tune in the desired station.

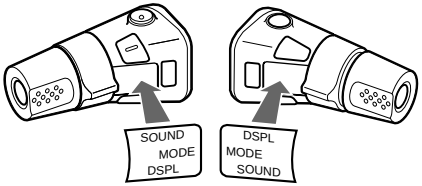
Note
If you have a TV tuner connected, the list-up indication will not appear in the display.

Other Functions

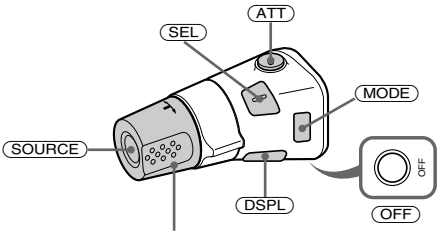
You can also control the unit with a rotary commander **(optional)**.

Using the rotary commander

First, attach the appropriate label depending on how you want to mount the rotary commander.
The rotary commander works by pressing buttons and / or rotating controls.



By pressing buttons



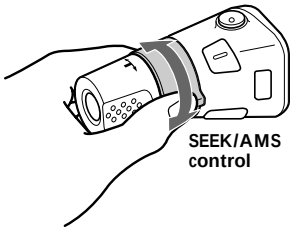
Rotate the VOL control to adjust the volume.

Press	To
(SOURCE)	Change source (radio / CD / MD*1 / TV*1)
(MODE)	Change operation (radio band / CD unit / MD unit*1 / TV*1 / Video*1)
(ATT)	Attenuate sound
(OFF) *2	Stop playback or radio reception
(SOUND)	Adjust the sound menu
(DSPL)	Change the display item

*[1] *Only if the corresponding optional equipment is connected.*

*[2] *If your car has no ACC (accessory) position on the ignition key switch, be sure to press (OFF) for 2 seconds to turn off the clock indication after turning off the ignition.*

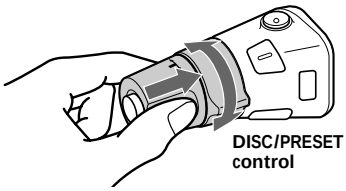
By rotating the control



Rotate and release to:
– Skip tracks.
– Tune in stations automatically.

Rotate, hold, and release to:
– Fast-forward / reverse a track.
– find a station manually.

By pushing in and rotating the control

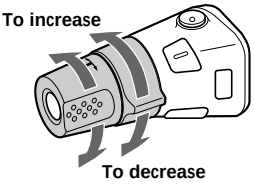


Push in and rotate the control to:
– Receive preset stations.
– Change the disc*.

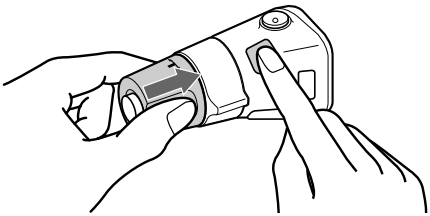
** When an optional CD/MD unit is connected.*

Changing the operative direction

The operative direction of controls is factory-set as shown below.



If you need to mount the rotary commander on the right hand side of the steering column, you can reverse the operative direction.



Press (SOUND) for 2 seconds while pushing the VOL control.

Adjusting the sound characteristics

You can adjust the bass, treble, balance, and fader.
The bass and treble levels can be stored independently for each source.

1 Select the item you want to adjust by pressing (SOUND) repeatedly.
Each time you press (SOUND), the item changes as follows:

BAS (bass) → TRE (treble) →
BAL (left-right) → FAD (front-rear)

2 Adjust the selected item by pressing either side of (SEEK).
When adjusting with the rotary commander, press (SOUND) and rotate the VOL control.

Note
Adjust within 3 seconds after selecting the item.

Quickly attenuating the sound

(With the rotary commander or the card remote commander)

Press (ATT) on the rotary commander or card remote commander.
After "ATT-ON" momentarily appears, the "ATT" appears in the display.

To restore the previous volume level, press (ATT) again.

Changing the sound and display settings — Menu

The following items can be set:

SET (Set Up)

- CLOCK (page 9)
- BEEP — to turn the beeps on or off.
- RM (Rotary Commander) — to change the operative direction of the controls of the rotary commander.
  - — Select "NORM" to use the rotary commander as the factory-set position.
  - — Select "REV" when you mount the rotary commander on the right side of the steering column.
- P.OUT-4.0V / P.OUT-5.5V — to change the pre-out of the power amplifier to 4.0 V or 5.5 V. Selectable only when the unit is turned off. (CDX-CA660X only)

Note
If the volume is turned up very high when connected to a power amplifier, the sound may be distorted. In this case, set P.OUT to "4.0V."

DSPL (Display)

- D.INFO (Dual Information) — to display the clock and the play mode at the same time (ON).
- M.DSPL (Motion Display) — to select the Motion Display mode from "1," "2," and "OFF."
  - — Select "1" to show decoration lines in the display and activate Demo display.
  - — Select "2" to show decoration lines in the display and deactivate Demo display.
  - — Select "OFF" to deactivate the Motion Display.
- A.SCRL (Auto Scroll)
  - — Select "ON" to scroll all automatically displayed names exceeding 8 characters.
  - — When Auto scroll is set to off and the disc / track name is changed, the disc / track name does not scroll.

SND (Sound)

- LOUD (Loudness) — to enjoy bass and treble even at low volumes. The bass and treble will be reinforced.

P/M (Play Mode)

- LOCAL-ON / OFF (Local seek mode) (page 14)
  — Select "ON" to only tune into stations with stronger signals.
- MONO-ON / OFF* (Monaural mode) (page 14)
  — Select "ON" to hear FM radio / TV stereo broadcast in monaural. Select "OFF" to return to normal mode.
- IF AUTO / WIDE (page 14)

* *This function cannot change the TV sound setting if the optional TV tuner XT-40V is connected.*

1 **Press (MENU).**
To set A.SCRL, press (MENU) during CD / MD Playback.

2 **Press either side of (DISC/PRESET) repeatedly until the desired item appears.**

3 **Press the (+) side of (SEEK) to select the desired setting (Example: ON or OFF).**

4 **Press (ENTER).**
After the mode setting is completed, the display returns to normal play mode.

Note
The displayed item will differ depending on the source.

Tip
You can easily switch among categories ("SET," "DSPL," "SND," "P/M," and "EDIT") by pressing either side of (DISC/PRESET) for 2 seconds.

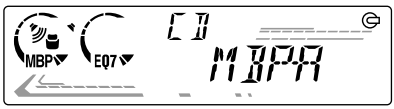
Selecting the sound position

— "My Best sound Position (MBP)"

When you drive without passengers, you can enjoy the most comfortable sound environment with "My Best sound Position." "My Best sound Position" has two presets, which adjust the sound level of balance and fader. You can select one very easily with the MBP button.

Display window	Balance Level		Fader Level	
	Right	Left	Front	Rear
MBP-A	– 4dB	0	0	– 4dB
MBP-B	0	– 4dB	0	– 4dB
MBP-OFF	0	0	0	0

Press (MBP) repeatedly for the desired listening position.
The mode of "My Best sound Position" is shown in the display in order of the table.



After one second, the display goes back to the normal playback mode.
If you want to adjust the sound level of balance and fader more precisely, you can do it using the (SOUND) button. (See "Adjusting the sound characteristics" on page 18.)

Notes
- *When the BAL (balance) or FAD (fader) in "Adjusting the sound characteristics" (page 18) is adjusted, the MBP setting returns to OFF.*
- *When MBP is set to OFF, the BAL and FAD setting is activated.*

Setting the equalizer

You can select an equalizer curve for seven music types (VOCAL, CLUB, JAZZ, NEW AGE, ROCK, CUSTOM, and XPLOD).
You can store and adjust the equalizer settings for frequency and level.

Selecting the equalizer curve

1 Press (SOURCE) to select a source (radio, CD, or MD).

2 Press (EQ7) repeatedly until the desired equalizer curve appears.
Each time you press (EQ7), the item changes.

To cancel the equalizing effect, select "OFF."
After 3 seconds, the display returns to the normal playback mode.

Adjusting the equalizer curve

1 Press (MENU).

2 Press either side of (DISC/PRESET) repeatedly until "EQ7 TUNE" appears, then press (ENTER).

3 Press either side of (SEEK) to select the desired equalizer curve, then press (ENTER).
Each time you press (SEEK), the item changes.

4 Select the desired frequency and level.

❶ Press either side of (SEEK) to select the desired frequency.
Each time you press (SEEK), the frequency changes.

62 Hz ⟷ 157 Hz ⟷ 396 Hz ⟷ 1.0 kHz ⟷ 2.5 kHz ⟷ 6.3 kHz ⟷ 16.0 kHz

❷ Press either side of (DISC/PRESET) to adjust the desired volume level.
The volume level is adjustable by 1 dB steps from –10 dB to +10 dB.

To restore the factory-set equalizer curve, press (ENTER) for two seconds.

5 Press (MENU) twice.
When the effect setting is complete, the normal playback mode appears.

TV/Video (optional)

You can connect an optional TV tuner and TV monitor to this unit.

Watching the TV

1 Press (SOURCE) repeatedly until "TV" appears.

2 Press either side of (DISC/PRESET) repeatedly to select the desired TV band.

Watching a video

1 Press (SOURCE) repeatedly until "TV" appears.

2 Press (MODE) repeatedly to select "AUX."
Playback the video.

Tip
Each time you press (MODE), the item changes as follows: TV1 → TV2 → AUX

Storing TV channels automatically

The unit selects the TV channels with the strongest signals and stores them in the order of their frequency.

Caution

When tuning in a station while driving, use AUTO MEM (Automatic Memory) to prevent accidents.

1 Press (SOURCE) repeatedly until "TV" appears.

2 Press (MENU), then press either side of (DISC/PRESET) until "AUTO MEM" appears.

3 Press (ENTER).
The unit stores TV channels in the order of their frequencies on the number buttons. A beep sounds when the setting is stored.

Notes
- *The unit does not store TV channels with weak signals. If only a few TV channels can be received, some number buttons will remain empty.*
- *When a preset number is indicated in the display, the unit starts storing TV channels from the one currently displayed.*

Storing only the desired TV channels

You can store up to 12 channels (6 each for TV1 and 2) on the number buttons in the order of your choice.

1 Press (SOURCE) repeatedly until "TV" appears.

2 Press either side of (SEEK) to tune in the TV channel that you want to store.

3 Press the desired number button ((1) to (6)) for 2 seconds until "MEM" appears.

Note

If you try to store another channel on the same number button, the previously stored channel will be erased.

Storing TV station names — Station Memo

You can assign a name to each TV station and store it in memory in the same way as radio stations.
See "Storing station names" on page 15.
Note that select a TV station before the operation.

Locating a TV station by name — List-up

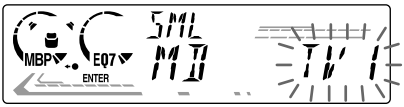
You can locate a TV station by name in the same way as radio stations.
See "Locating a station by name" on page 16.

Watching the TV or video while listening to a CD or MD — Simultaneous Play

The simultaneous play function does not work while you are listening to the radio.

1 Press (MENU), then press either side of (DISC/PRESET) repeatedly until "SIMUL-SEL" appears.

2 Press (ENTER).



3 Press (–) side of (SEEK), then press (SOURCE) repeatedly to select "CD" or "MD."

4 Press (+) side of (SEEK), then press (SOURCE) repeatedly to select a "TV" or "AUX (video)."

5 Press (ENTER).
Simultaneous Play starts.

If you are already watching the TV or video and want to listen to a CD or MD as well, follow the same steps.

Returning to normal mode

To cancel the CD or MD, select "– – –" in step 3.

To cancel the TV or video, select "– – –" in step 4.

Note

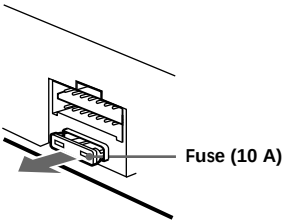
If you press ⏏ (eject) on this unit or an optional CD/MD unit while the unit is in simultaneous play mode, Simultaneous Play is cancelled.

Additional Information

Maintenance

Fuse replacement

When replacing the fuse, be sure to use one matching the amperage rating stated on the original fuse. If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.

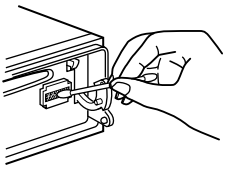


Warning

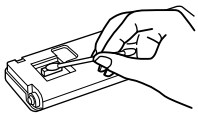
Never use a fuse with an amperage rating exceeding the one supplied with the unit as this could damage the unit.

Cleaning the connH tors

The unit may not function properly if the connectors between the unit and the front panel are not clean. In order to prevent this, detach the front panel (page 8) and clean the connectors with a cotton swab dipped in alcohol. Do not apply too much force. Otherwise, the connectors may be damaged.



Main unit



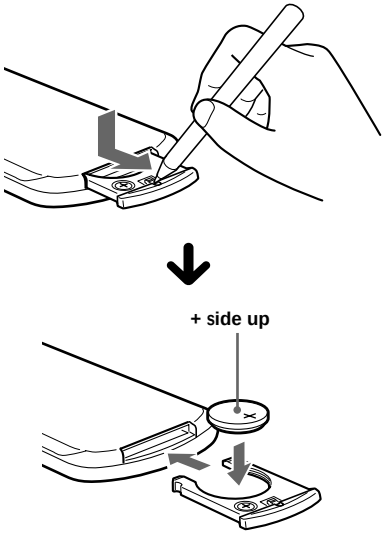
Back of the front panel

Notes

- *For safety, turn off the ignition before cleaning the connectors, and remove the key from the ignition switch.*
- *Never touch the connectors directly with your fingers or with any metal device.*

Replacing the lithium battery

Under normal conditions, batteries will last approximately 1 year. (The service life may be shorter, depending on the conditions of use.) When the battery becomes weak, the range of the card remote commander becomes shorter. Replace the battery with a new CR2025 lithium battery.



Notes on lithium battery

- Keep the lithium battery out of the reach of children. Should the battery be swallowed, immediately consult a doctor.
- Wipe the battery with a dry cloth to assure a good contact.
- Be sure to observe the correct polarity when installing the battery.
- Do not hold the battery with metallic tweezers, otherwise a short-circuit may occur.

WARNING

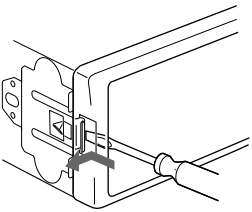
Battery may explode if mistreated.
Do not recharge, disassemble, or dispose of in fire.

Removing the unit

1 **Remove the front cover**

❶ **Detach the front panel (page 8).**

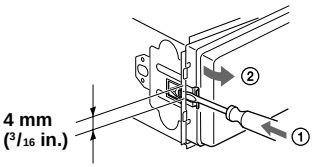
❷ **Press the clip inside the front cover with a thin screwdriver.**



❸ **Repeat step ❷ for the other side.**

2 **Remove the unit**

❶ **Use a thin screwdriver to push in the clip on the left side of the unit, then pull out the left side of the unit until the catch clears the mounting.**



❷ **Repeat step ❶ for the right side.**

❸ **Slide the unit out of its mounting.**

Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
23 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 5% total harmonic distortion.

CD player section

Signal-to-noise ratio	90 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit
Laser Diode Properties	
Material	GaAlAs
Wavelength	780 nm
Emission Duration	Continuous
Laser output power	Less than 44.6 µW*

* *This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.*

Tuner section

FM

Tuning range	87.5 – 107.9 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	66 dB (stereo), 72 dB (mono)
Harmonic distortion at 1 kHz	
	0.6 % (stereo), 0.3 % (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	52 W × 4 (at 4 ohms)

General

Outputs	Audio outputs Power antenna relay control lead Power amplifier control lead
Input	Telephone ATT control lead
Tone controls	Bass ±10 dB at 62 Hz Treble ±10 dB at 16 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 176 mm ($7\ ^1/_8 \times 2 \times 7$ in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 161 mm ($7\ ^1/_4 \times 2\ ^1/_8 \times 6\ ^3/_8$ in.) (w/h/d)
Mass	Approx. 1.2 kg (2 lb 10 oz)
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1) Card remote commander RM-X114
Optional accessories	Rotary commander RM-X4S BUS cable (supplied with an RCA pin cord) RC-61 (1 m), RC-62 (2m)
Optional equipment	CD changer (10 discs) CDX-848X, CDX-747X, CDX-646 CD changer (6 discs) CDX-T68X, CDX-T67 MD changer (6 discs) MDX-65 Source selector XA-C30 TV tuner XT-40V, etc.

Note

This unit cannot be connected to a digital preamplifier or an equalizer.

Design and specifications are subject to change without notice.

Troubleshooting

The following checklist will help you remedy problems you may encounter with your unit. Before going through the checklist below, check the connection and operating procedures.

General

No sound.
- Rotate the volume control dial clockwise to adjust the volume.
- Cancel the ATT function.
- Set the fader control to the center position for a 2-speaker system.

The contents of the memory have been erased.
- The RESET button has been pressed.
  → Store again into the memory.
- The power cord or battery has been disconnected.
- The power connecting cord is not connected properly.

No beep sound.
The beep sound is cancelled (page 18).

Indications disappear from/do not appear in the display.
- The clock display disappears if you press (OFF) for 2 seconds.
  → Press (OFF) again for 2 seconds to display the clock.
- Remove the front panel and clean the connectors. See "Cleaning the connectors" (page 23) for details.

Stored stations and correct time are erased.
The fuse has blown.
Makes noise when the ignition key is in the ON, ACC, or OFF position.
The leads are not matched correctly with the car's accessory power connector.

No power is being supplied to the unit.
- Check the connection. If everything is in order, check the fuse.
- The car does not have an ACC position.
  → Press (SOURCE) (or insert a disc) to turn on the unit.

The power is continuously supplied to the unit.
The car does not have an ACC position.

The power antenna does not extend.
The power antenna does not have a relay box.

CD/MD playback

A disc cannot be loaded.
- Another CD is already loaded.
- The CD is forcibly inserted upside down or in the wrong way.

Playback does not begin.
- Defective MD or dirty CD.
- CD-R that is not finalized.
- You tried to playback a CD-R not designed for audio use.
- Some CD-Rs may not play due to its recording equipment or the disc condition.

A disc is automatically ejected.
The ambient temperature exceeds 50°C (122°F).

The operation buttons do not function.
Press the RESET button.

The sound skips from vibration.
- The unit is installed at an angle of more than 60°.
- The unit is not installed in a sturdy part of the car.

The sound skips.
Dirty or defective disc.

Cannot turn off the "--------" indication.
You entered the name edit mode.
→ Press (LIST) for 2 seconds.

Radio reception

Preset tuning is not possible.
- Store the correct frequency in the memory.
- The broadcast signal is too weak.

The stations cannot be received.
The sound is hampered by noises.
- Connect a power antenna control lead (blue) or accessory power supply lead (red) to the power supply lead of a car's antenna booster. (Only when your car has built-in FM/AM antenna in the rear/side glass.)
- Check the connection of the car antenna.
- The auto antenna will not go up.
  → Check the connection of the power antenna control lead.
- Check the frequency.

Automatic tuning is not possible.
- The local seek mode is set to "ON."
  → Set the local seek mode to "OFF" (page 18).
- The broadcast signal is too weak.
  → Perform manual tuning.

The "ST" indication flashes.

- Tune in the frequency accurately.
- The broadcast signal is too weak.
  → Set to the monaural reception mode (page 18).

A program broadcast in stereo is heard in monaural.

The unit is in monaural reception mode.
→ Cancel monaural reception mode (page 18).

Interference occurs during FM reception.

The wide mode is selected.
→ Set the IF mode to "IF AUTO" (page 18).

Error displays/Messages

Error displays

(For this unit and optional CD/MD changers)

The following indications will flash for about 5 seconds, and an alarm sound will be heard.

BLANK[*1]

No tracks have been recorded on an MD.[*2]
→ Play an MD with recorded tracks on it.

ERROR[*1]

- A CD is dirty or inserted upside down.[*2]
  → Clean or insert the CD correctly.
- A CD/MD cannot play because of some problem.[*2]
  → Insert another CD/MD.

HI TEMP

The ambient temperature is more than 50°C (122°F).
→ Wait until the temperature goes down below 50°C (122°F).

NO DISC

No disc is inserted in the CD/MD unit.
→ Insert discs in the CD/MD unit.

NO MAG

The disc magazine is not inserted in the CD/MD unit.
→ Insert the magazine in the CD/MD unit.

NOTREADY

The lid of the MD unit is open or the MDs are not inserted properly.
→ Close the lid or insert the MDs properly.

RESET

The CD/MD unit cannot be operated because of some problem.
→ Press the RESET button on the unit.

[*1] *When an error occurs during playback of an MD or CD, the disc number of the MD or CD does not appear in the display.*

[*2] *The disc number of the disc causing the error appears in the display.*

If these solutions do not help improve the situation, consult your nearest Sony dealer.

Messages

L.SEEK +/–

The Local Seek mode is on during automatic tuning (page 14).

"i... i... i... i..." or "-'-' -'-'"

You have reached the beginning or the end of the disc and you cannot go any further.

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